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SAN DIEGO, CA 92101

EXAMINER
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YIMAM, HARUN M

ART UNIT	PAPER NUMBER
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2623

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	03/26/2007	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 03/26/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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# Office Action Summary

Application No.

09/843,589

Applicant(s)

BRUCKNER ET AL.

Examiner

Harun M. Yimam

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-12, 19-29 and 34-50 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12, 19-29 and 34-50 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |  |
|--|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____   |

## DETAILED ACTION

### *Response to Arguments*

1. Although a new ground of rejection has been used to address additional limitations that have been added to **claims 1, 9, 19 and 27**, a response is considered necessary for several of applicant's arguments since applicants make arguments that need to be addressed and also since references Barone (US 2005/0005303), Kalluri (US 5,937,331), Andrade (US 2002/0059644), Park (US 6,460,180), Zigmond (US 6,698,020), Markel (US 6,791,579) and Zigmond (US 6,330,719) will continue to be used to meet several claimed limitations.

2. In response to applicants' argument (page 19, 2<sup>nd</sup> paragraph) that Barone fails to teach all limitations of amended claim 1, applicants should note that it is the combination of Barone and Kalluri that teaches all limitations of amended claim 1 and not Barone alone. The rejection for all limitations of amended claim 1 is provided below.

3. In response to applicants' argument (page 19, 2<sup>nd</sup> paragraph) that Barone and Kalluri, alone or in combination, fail to teach all limitations of amended claim 1, please see the rejection below addressing the newly added limitations of amended claim 1.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 - 3, 9, 19 - 21, 27, 34 - 42 and 45 - 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barone (US 2005/0005303) in view of Kalluri (US 5,937,331).

Considering claims 1 and 19, Barone discloses an interactive enabling system (20 in figure 3) for managing interactive program content (interactive content—paragraph 0031, lines 1-5) associated with enhanced program content (enhanced program—paragraph 0031, lines 1-5) and interactive commercial content (interactive content—paragraph 0044, lines 1-7) associated with commercial spots (commercial slots during a particular program—paragraph 0035, lines 7-10), the system comprising:

an interactive enabling device (ITV receiver 20 in figure 3) coupled for receiving a broadcast stream (TV signal—paragraph 0026, lines 1-8), said broadcast stream including the enhanced program content (enhanced program- interactive commercial content—paragraph 0031, lines 1-5 and paragraph 0044, lines 1-7) in series with the commercial spots (commercial slots during a particular program—paragraph 0035,

lines 7-10), the broadcast stream further including commercial pre-triggers (URL link, trigger, or any other ITV data is pre-inserted/preloaded into the program being broadcast—paragraph 0014, lines 1-6 and paragraph 0026, lines 1-8) and interactive commercial triggers (embedded commands that instructs ITV receiver to begin displaying the downloaded content—paragraph 0050, lines 6-8) for retrieving the interactive commercial content (for preloading/precaching interactive commercial contents—paragraph 0044, lines 1-7); and

at least one interactive content server (32 in figure 3) coupled for communicating with an interactive control application in the interactive enabling device (interactive enabling device, ITV receiver 20 in figure 3, is already programmed to automatically establish a link with the interactive content server upon the receipt of any ITV data i.e., interactive commercial triggers—paragraph 0014, lines 7-12, paragraph 0028, lines 1-9);

wherein the interactive enabling device (ITV receiver 20 in figure 3) executes the interactive control application (inherently disclosed as addressed in the limitation discussed above) to manage the retrieval of the interactive program (corresponding TV segment) and commercial content (television commercial—paragraph 0027, lines 1-6) from the at least one interactive content server (32 in figure 3) in response to the program and commercial pre-triggers and make available the interactive program and commercial content in response to the interactive program and commercial triggers (Desired content is delivered to ITV receiver from the content server, upon receipt of commercial pre-triggers/ITV data, and preloaded/precached for subsequent

presentation to the user—paragraph 0027, lines 1-6, paragraph 0029, lines 4-9. Then embedded commands/commercial triggers instruct ITV receiver to begin displaying the downloaded content—paragraphs 0049 and 0050),

wherein the interactive enabling device (ITV receiver 20 in figure 3) is operable to respond to a commercial pre-trigger (URL link, trigger, or any other ITV data is pre-inserted/preloaded into the program being broadcast—paragraph 0014, lines 1-6 and paragraph 0026, lines 1-8) embedded in the enhanced program content (the ITV data is embedded in the TV signal—paragraph 0043, lines 1-8).

Barone fails to disclose that the broadcast stream further includes program pre-triggers and interactive program triggers for retrieving the interactive program.

In analogous art, Kalluri discloses a broadcast stream (AVI signal) including program pre-triggers (trigger command for **loading** the interactive program) and interactive program triggers for retrieving the interactive program (trigger command for **playing** the interactive program—column 2, lines 30-53, column 4, lines 56-67 and column 5, lines 21-24).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Barone's system to include program pre-triggers and interactive program triggers, as taught by Kalluri, for the benefit of providing end-users television program associated interactive programming that is controlled by trigger commands (column 5, lines 21-24).

Considering claims 9, 27, 34-38, 40, 41 and 45-47, Barone discloses an interactive enabling system (20 in figure 3) for managing interactive program content (interactive content—paragraph 0031, lines 1-5) associated with enhanced program content (enhanced program—paragraph 0031, lines 1-5) and interactive commercial content (interactive content—paragraph 0044, lines 1-7) associated with commercial spots (commercial slots during a particular program—paragraph 0035, lines 7-10), the system comprising:

an interactive enabling device (ITV receiver 20 in figure 3) coupled for receiving a broadcast stream (TV signal—paragraph 0026, lines 1-8) generated by a broadcast sponsor and for responding to commercial pre-triggers inserted into the broadcast stream (URL link, trigger, or any other ITV data is pre-inserted/preloaded into the program being broadcast—paragraph 0014, lines 1-6 and paragraph 0026, lines 1-8) for retrieving the interactive program (corresponding TV segment) and commercial content (television commercial—paragraph 0027, lines 1-6) in advance of when the content is needed (before the corresponding TV segment will be broadcast—paragraph 0026, lines 5-8), said broadcast stream including the enhanced program content (enhanced program- interactive commercial content—paragraph 0031, lines 1-5 and paragraph 0044, lines 1-7) and the commercial spots (commercial slots during a particular program—paragraph 0035, lines 7-10); and

at least one interactive content server (32 in figure 3) coupled through a communication link for communicating with an interactive control application in the

interactive enabling device (interactive enabling device, ITV receiver 20 in figure 3, is already programmed to automatically establish a link with the interactive content server upon the receipt of any ITV data i.e., interactive commercial triggers—paragraph 0014, lines 7-12, paragraph 0028, lines 1-9);

wherein the interactive enabling device (ITV receiver 20 in figure 3) executes the interactive control application (inherently disclosed as addressed in the limitation discussed above) to manage the retrieval of the interactive program (corresponding TV segment) and commercial content (television commercial—paragraph 0027, lines 1-6) in response to the commercial pre-triggers (the ITV data, which can be a simple trigger or other command that commands the ITV receiver to retrieve some interactive content—paragraph 0027, lines 1-6); and

wherein the interactive enabling device (ITV receiver 20 in figure 3) is operable to respond to a commercial pre-trigger (URL link, trigger, or any other ITV data is pre-inserted/preloaded into the program being broadcast—paragraph 0014, lines 1-6 and paragraph 0026, lines 1-8) embedded in the enhanced program content (the ITV data is embedded in the TV signal—paragraph 0043, lines 1-8).

Barone fails to disclose the broadcast stream further including program interactive pre-triggers for retrieving the enhanced program content.

In analogous art, Kalluri discloses a broadcast stream (AVI signal) including interactive program pre-triggers (the interactive program trigger is pre-inserted into the



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broadcast stream) for retrieving the interactive program (see column 2, lines 30-53, column 4, lines 56-67 and column 5, lines 21-24).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Barone's system to include interactive program pre-triggers, as taught by Kalluri, for the benefit of providing end-users television program associated interactive programming that is controlled by trigger commands (column 5, lines 21-24).

As for claim 39, it is met by the combination of Barone and Kalluri. In particular, Barone discloses that the said interactive enabling device (ITV receiver—20 in figure 3) is configured to respond to said interactive commercial pre-trigger (URL link, trigger, or any other ITV data is pre-inserted/preloaded into the program being broadcast—paragraph 0014, lines 1-6 and paragraph 0026, lines 1-8) by executing said interactive control application to manage the retrieval of interactive commercial content that is specified by the interactive commercial pre-trigger during a time when the interactive enabling device is receiving the enhanced program content (enhanced program - interactive commercial content—paragraph 0031, lines 1-5 and paragraph 0044, lines 1-7) in the broadcast stream (paragraph 0015, lines 6-11 and paragraph 0036, lines 1-7).

Considering claim 42, it is met by the combination of Barone and Kalluri. In particular, Barone discloses that the interactive commercial pre-trigger (URL link,

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trigger, or any other ITV data is pre-inserted/preloaded into the program being broadcast—paragraph 0014, lines 1-6 and paragraph 0026, lines 1-8) occurs earlier in the broadcast stream than a commercial spot of the commercial spots that is associated with the interactive commercial pre-trigger (see figure 2b and paragraph 0026, lines 1-8).

6. Claims 2, 3, 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barone (US 2005/0005303) in view of Kalluri (US 5,937,331), as applied to claims 1 and 19 above, and further in view of Andrade (2002/0059644).

As for claims 2 and 20, Barone and Kalluri fail to disclose that the interactive control application includes a gatekeeper function for selectively retrieving interactive program and commercial content in response to recognized interactive program and commercial triggers.

In analogous art, Andrade discloses that the interactive control application includes a gatekeeper function (paragraph 26, lines 1-13) for selectively retrieving interactive program (paragraph 0020, lines 9-14) and commercial content in response to recognized interactive program and commercial triggers (paragraph 0028, lines 7-14).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combined system of Barone and Kalluri to include a gatekeeper function, as taught by Andrade, for the benefit of selectively retrieving interactive program and commercial content (paragraph 0020, lines 9-14).

With regards to claims 3 and 21, Barone, Kalluri and Andrade disclose the claimed limitations. In particular, Andrade discloses that the interactive enabling device retrieves the interactive program (paragraph 0020, lines 9-14) and commercial content (paragraph 0028, lines 7-14) from the at least one interactive content server through a communication link or assembled from information in the broadcast stream (paragraph 0038, lines 1-13).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combined system of Barone and Kalluri to include a communication link, as taught by Andrade, for the benefit of retrieving the interactive program and commercial content from the interactive content server (paragraph 0038, lines 1-13).

7. Claims 4 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barone (US 2005/0005303) and Kalluri (US 5,937,331) in view of Andrade (US

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2002/0059644), as applied to claims 1 and 19 above, and further in view of Park (US 6,460,180).

Regarding claims 4 and 22, Barone, Kalluri and Andrade disclose an interactive enabling system and method for managing interactive program and commercial content.

Barone, Kalluri and Andrade fail to disclose event and time-driven triggers embedded in the broadcast stream to avoid interference between the interactive program and commercial content.

In analogous art, Park discloses that the interactive enabling device is configured for receiving and responding to event and time-driven triggers embedded in the broadcast stream to ensure that the interactive program and commercial content does not extend beyond specified time limits, overlap, or otherwise interfere with each other (column 4, lines 31-37).

It would have been obvious to one of ordinary skill in the art to modify the combined system of Barone, Kalluri and Andrade to include event and time-driven triggers embedded in the broadcast stream, as taught by Park, for the benefit of removing the interactive display if not selected by a user within a selected amount of time (Park— column 4, lines 35-37).

8. Claims 5-7 and 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barone (US 2005/0005303) and Kalluri (US 5,937,331) in view of Andrade (US 2002/0059644), as applied to claims 1 and 19 above, and further in view of Zigmond (US 6,698,020).

Considering claims 5 and 23, Barone, Kalluri and Andrade discloses an interactive enabling system and method for managing interactive program and commercial content.

Barone, Kalluri and Andrade fail to disclose an agreement between broadcasters and program or commercial sponsors for selecting and displaying interactive program and commercial content.

In analogous art, Zigmond discloses that the said gatekeeper is configured to recognize the interactive program and commercial triggers based on agreements between broadcasters and program or commercial sponsors (column 8, lines 55-64).

It would have been obvious to one of ordinary skill in the art to modify the combined system of Barone, Kalluri and Andrade to include an agreement between broadcasters and program or commercial sponsors, as taught by Zigmond, for the benefit of having the ability to specifically target viewers (column 8, lines 58-60).

As for claims 6 and 24, Zigmond discloses that the gatekeeper is configured to recognize the interactive program and commercial triggers based on parameters embedded within the interactive program and commercial triggers (column 12, lines 15-32).

With regards to claims 7 and 25, Zigmond discloses that the gatekeeper is configured to recognize the interactive program and commercial triggers based on parameters maintained within the interactive enabling device (column 12, lines 15-32).

9. Claims 10, 11, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barone (US 2005/0005303) and Kalluri (US 5,937,331) in view of Andrade (2002/0059644), as applied to claim 9 above, and further in view of Markel (US 6,791,579).

As for claim 10, Barone, Kalluri and Andrade fail to disclose that the interactive pre-triggers are inserted into a broadcast stream based on estimates for communication link speed.

In analogous art, Markel discloses that the interactive enabling device is configured for receiving interactive program and commercial pre-triggers that were inserted into the broadcast stream by the broadcast sponsor at a specific time in

advance of when the interactive program and commercial content is needed, based on estimates for communication link speed (column 6, lines 36-47).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combined system of Barone, Kalluri and Andrade to include insertion of pre-triggers based on communication link speed, as taught by Markel, for the benefit of understanding bandwidth constraints and determining the insertion rate.

With regards to claims 11 and 28, it is met by the combination of Barone, Kalluri, Andrade, and Markel. In particular, Markel discloses the interactive enabling device includes a list of approved pre-triggers; and wherein the interactive control application enables the retrieval of the interactive program and commercial content only if codes embedded in the interactive program pre-triggers and commercial pre-triggers match the codes in the list of approved pre-triggers (column 3, lines 52-57 and column 6, lines 44-47).

10. Claims 8, 12, 26, 29, 43, 44 and 48-50 are rejected under 35 U.S.C. 103(a) as being unpatentable Barone (US 2005/0005303) and Kalluri (US 5,937,331) in view of Andrade (2002/0059644), as applied to claims 9 and 27 above, and further in view of Zigmond (US 6,330,719).

Regarding claims 8 and 12, Barone, Kalluri and Andrade disclose the claimed limitations. In particular, Barone discloses a plurality of additional interactive enabling devices (ITV receivers—paragraph 0044, lines 1-7) in addition to said interactive enabling device (ITV receiver—20 in figure 3), each of said plurality of additional interactive enabling devices coupled for receiving a broadcast stream (TV signal—paragraph 0026, lines 1-8). Barone further discloses interactive program (interactive content for a corresponding TV program—paragraph 0031, lines 1-5) and commercial pre-triggers inserted into the broadcast stream (URL link, trigger, or any other ITV data is pre-inserted/preloaded into the program being broadcast— paragraph 0014, lines 1-6 and paragraph 0026, lines 1-8) for retrieving the interactive program (corresponding TV segment) and commercial content (television commercial—paragraph 0027, lines 1-6).

Barone, Kalluri and Andrade fail to disclose a randomizer for randomly time-skewing the retrieval of the interactive program and commercial content in response to the interactive program and commercial pre-triggers.

In analogous art, Zigmond discloses a randomizer (interactive television receiver unit browser—column 2, line 27 and column 8, lines 65 – column 9, lines 7) for randomly time-skewing the retrieval of the interactive program and commercial content in response to the interactive program and commercial pre-triggers (column 2, lines 26-30 and 47-56 and column 4, lines 24-34).



It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combined system of Barone, Kalluri and Andrade to include a random time-skewing, as taught by Zigmond, for the benefit of eliminating throughput bottlenecks by spreading accesses of a destination out over time (column 2, lines 47-56).

Considering claims 26 and 29, they are rejected for the same reasons as discussed in claims 9 and 12.

As for claim 43, it is met by the combination of Barone, Kalluri, Andrade, and Zigmond. In particular, Zigmond discloses that the randomizer (interactive television receiver unit browser—column 2, line 27 and column 8, lines 65 – column 9, lines 7) randomly time-skews a beginning of a retrieval of interactive commercial content that is specified by the interactive commercial pre-trigger within an allotted time window (column 2, lines 26-56 and column 4, lines 24-34).

With regards to claim 44, it is met by the combination of Barone, Kalluri, Andrade, and Zigmond. In particular, Zigmond discloses that the time window is a time period (period of time—column 2, lines 27-28 and column 4, lines 13-31) during which the interactive enabling device (interactive television receiver unit—column 8, lines 48-

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57) and each of the additional interactive enabling devices receive the enhanced program content in the broadcast stream (column 4, lines 47-64).

Regarding claim 48, it is rejected for the same reasons as discussed in claims 9 and 43.

Considering claims 49 and 50, they are rejected for the same reasons as discussed in claims 9 and 12.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Harun M. Yimam whose telephone number is 571-272-7260. The examiner can normally be reached on M-F 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on 571-272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HMY



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